11

CLAIMS:

1.   A method of generating a depth map (122) comprising depth values representing distances to a viewer, for respective pixels of an image (100), the method comprising:

-        determining a contour (106) on basis of pixel values of the image (100), the contour (106) comprising a collection of adjacent points;

-        computing curvature vectors (108-114) at a number of the points; and

-        assigning a first one of the depth values corresponding to the first one of the pixels on basis of the curvature vectors (108-114).

2.   A method of generating a depth map (122) as claimed in Claim 1, whereby assigning the first one of the depth values comprises computing depth derivatives on basis of the respective curvature vectors (108-114) and computing the first one of the depth values on basis of a first one of the depth derivatives.

3.   A method of generating a depth map (122) as claimed in Claim 2, whereby a size of a first one of the depth derivatives is computed on basis of the length of a first one of the curvature vectors.

4.   A method of generating a depth map (122) as claimed in Claim 2, whereby a direction of a first one of the depth derivatives is computed on basis of the orientation of a first one of the curvature vectors.

5.   A method of generating a depth map (324) as claimed in Claim 1, the method further comprising:

-        computing a collection of average vectors (320) on basis of the curvature vectors (310), the average vectors (320) having mutually equal lengths; and

-        assigning a first one of the depth values corresponding to the first one of the pixels on basis of the average vectors (320).

12

6.   A method of generating a depth map (324) as claimed in Claim 5, whereby the collection of average vectors (320) is computed by means of parallel transport.

7.   A method of generating a depth map (324) as claimed in Claim 5, whereby assigning the first one of the depth values comprises computing depth derivatives on basis of the respective average vector (320) and computing the first one of the depth values on basis of a first one of the depth derivatives.

8.   A method of generating a depth map (122) as claimed in Claim 7, whereby a size of a first one of the depth derivatives is computed on basis of the length of a first one of the average vectors (320).

9.   A method of generating a depth map (122) as claimed in Claim 7, whereby a direction of a first one of the depth derivatives is computed on basis of the orientation of a first one of the average vectors (320).

10.   A depth map generating unit (401) for generating a depth map (122) comprising depth values representing distances to a viewer, for respective pixels of an image (100), the depth map generating unit (401) comprising:
-          determining means (402) for the determining a contour (106) on basis of pixel values of the image (100), the contour (106) comprising a collection of adjacent points;
-          computing means (403) for computing curvature vectors (108-114) at a number of the points; and
-          assigning means (404) for assigning a first one of the depth values corresponding to the first one of the pixels on basis of the curvature vectors (108-114).

11.   An image processing apparatus (500) comprising:
-          receiving means (502) for receiving a signal corresponding to an image (100); and
-          a depth map generating unit (401) for generating a depth map (122), as claimed in Claim 1.

12.   A computer program product to be loaded by a computer arrangement, comprising instructions to generate a depth map (122) comprising depth values representing

13

distances to a viewer, for respective pixels of an image (100), the computer arrangement comprising processing means and a memory, the computer program product, after being loaded, providing said processing means with the capability to carry out:

- determining a contour (106) on basis of pixel values of the image (100), the
5 contour (106) comprising a collection of adjacent points;

- computing curvature vectors (108-114) at a number of the points; and

- assigning a first one of the depth values corresponding to the first one of the pixels on basis of the curvature vectors (108-114).